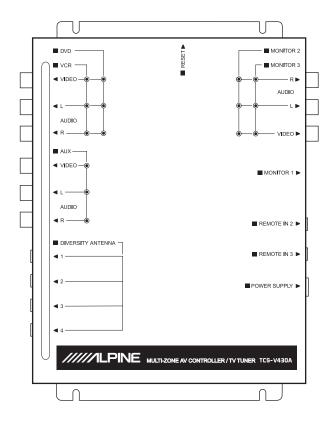
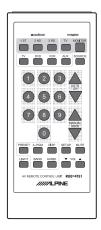


TCS-V430A

Multi-Zone AV Controller / TV Tuner

OWNER'S MANUAL







It is dangerous and illegal for the driver to watch the TV/Video while driving the vehicle. The driver may be distracted from looking ahead and an accident could occur.

Caution

- Read this manual thoroughly before starting installation and operation. You will find a number of Safety Warnings in this manual to tell you about things that could hurt you or other people if you were to ignore the Warnings. We cannot be responsible for problems resulting from failure to observe the Warnings in this manual.
- This manual uses a symbol to show how to use this product safely and to avoid harm to yourself and others and damage to your property. Here is what this symbol means. Understanding it is important for reading the Manual.
- · Meaning of Symbol:

/	î	\
	•	_

WARNING

This symbol means there is something that could cause serious injury or death to you or other people.

DO NOT DISASSEMBLE OR ALTER

Attempts to disassemble or alter this product can lead to accidental fires or electrical shock.

KEEP SMALL ARTICLES OUT OF THE REACH OF CHILDREN

Keep small articles (wire-ties, etc.) out of reach of children. If swallowed, consult a physician immediately.

USE ONLY IN CARS WITH A 12 VOLT NEGATIVE GROUND

Use only in cars with a 12 volt negative (–) ground electrical system. (Check with your dealer if you are not sure.) Failure to do so may result in fire, etc.

BEFORE WIRING, DISCONNECT THE CABLE FROM THE NEGATIVE BATTERY TERMINAL

Before doing any electrical wiring, disconnect the cable from the negative (–) terminal of the battery. Failure to do so may result in electric shock or injury due to electrical shorts.

KEEP ELECTRICAL CABLES TOGETHER TO AVOID OPERATING HAZARDS

Dress the wiring to keep them from interfering with the operation of the steering wheel, gear lever, brake pedals, etc.

DO NOT CUT AWAY INSULATION FROM ANY WIRE TO POWER OTHER EQUIPMENT

Tapping power from wiring to supply voltage to another piece of equipment could exceed the current carrying capacity of that wire. This could result in fire or electric shock.

DO NOT INSTALL IN LOCATIONS WHICH MIGHT HINDER VEHICLE OPERATION

Do not install in locations which might create hazards for the vehicle occupants or hinder vehicle operation (such as the steering wheel or gear shift) by obstructing forward vision or hampering movement etc.

DO NOT DAMAGE PIPES OR WIRING WHEN DRILLING HOLES

When drilling holes in the chassis for installation, take precautions so as not to contact, damage or obstruct pipes, tanks or electrical wiring. Failure to take such precautions may result in fire.

DO NOT USE NUTS OR BOLTS IN THE BRAKE SYSTEM FOR INSTALLATION OR GROUND CONNECTIONS

Never use safety-related parts such as bolts or nuts in the steering or brake systems or tanks to make wiring installations or ground connections. Using such parts could disable control of the vehicle and cause fire etc.

HALT USE IMMEDIATELY IF A PROBLEM APPEARS

When problems appear, stop using the system immediately and contact the dealer from whom you purchased the equipment. Some problems which may warrant immediate attention include a lack of sound, noxious odors or smoke being emitted from the unit, or foreign objects dropped inside the unit.

DO NOT OPERATE THE EQUIPMENT OR LOOK AT THE SCREEN WHILE DRIVING

Do not change settings while driving. If operation requiring a prolonged view of the display is required, stop the vehicle in a safe location before attempting operation.

DO NOT INSTALL THE MONITOR NEAR THE PASSENGER SEAT AIR BAG

Ensure that the location chosen for the monitor does not interfere with the operation of the passenger seat air bag. This will prevent the triggered air bag from launching the display towards passengers, possible causing injury.

HAVE THE WIRING AND INSTALLATION DONE BY EXPERTS

The wiring and installation of this unit requires special technical skill and experience. To ensure safety, always contact the dealer where you purchased this unit to have the work done.

DO NOT INSTALL IN LOCATIONS WITH HIGH MOISTURE OR DUST

Avoid installing the unit in locations with high incidence of moisture or dust. Moisture or dust that penetrates into this unit may cause smoke or fire.

MAKE THE CORRECT CONNECTIONS

Failure to make the correct connections can cause fire or accident to occur.

ARRANGE THE WIRING SO IT IS NOT CRIMPED OR PINCHED

Route the cables and wiring so as not to be crimped by moving parts like seat rails or to make contact with sharp spots which could damage the wiring.

DO NOT RAISE THE VOLUME EXCESSIVELY

Keep the volume at a level where you can still hear outside noises while driving. Driving while unable to hear outside sounds could cause an accident.



This symbol means important instructions. Failure to heed them can result in injury or material property damage.

Temperature

Be sure the temperature inside the vehicle is between +60°C (+140°F) and -10°C (+14°F) before turning your unit on.

Fuse Replacement

When replacing the fuse(s), the replacement must be of the same amperage as shown on the fuse holder. If the fuse(s) blows more than once, carefully check all electrical connections for shorted circuitry. Also have your vehicle's voltage regulator checked.

Maintenance

If you have problems, do not attempt to repair the unit yourself. Return it to your Alpine dealer or the nearest Alpine Service Station for servicing.

Installation Location

Make sure the TCS-V430A will not be exposed to:

- Direct sun and heat
- High humidity
- Excessive dust
- Excessive vibrations

FEATURES/DESCRIPTION

The Alpine TCS-V430A is a sophisticated Multi-zone, AV Controller with a built-in TV tuner (designed for U.S. broadcasts only). It realizes an across-the-board entertainment system for the mobile environment by creating individual AV spaces for each occupant. With the ability to select up to 4 AV sources (including the the built-in TV Tuner) and 3 outputs, 3 separate monitors can be controlled independently. The TV tuner is a high performance, 4-channel diversity, stereo (MTS) receiver, capable of receiving both standard broadcasts as well as cable (181 channels total). In addition, a special interface allows easy expansion using Alpine's overhead monitors.



It is dangerous and illegal for the driver to watch TV/Video while driving any vehicle. The driver may be distracted from looking ahead and an accident could occur.

Features:

AV Control

- 1 Internal AV Input (4-channel diversity, TV Tuner (U.S. NTSC only)
- 3 External AV Inputs: DVD, VCR, AUX (Audio L/R, Composite Video)
- 3 Individually controllable outputs (dedicated Overhead Monitor, MON2, MON3)
- Audio gain adjustment for each AV input (including internal TV tuner)
- Infrared, wireless remote control
- On Sscreen display (OSD) for each monitor output
- · Last status memory
- Multiple IR Remote IN (for connection to Alpine products having remote out)
- IR Remote OUT (for connection with Alpine products with remote in)

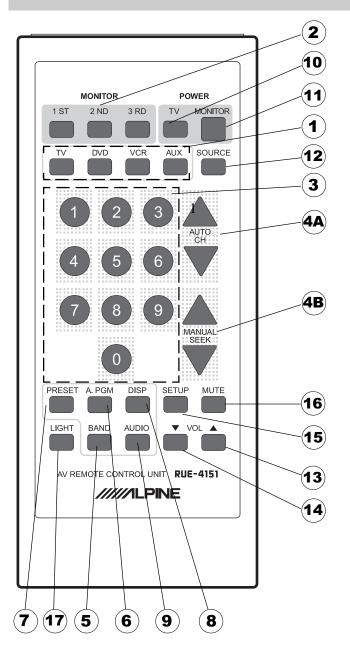
TV Tuner

- 181 Channels (TV: 2 69; Cable: 1 125)
- · Cable Ready
- Multi-sound: Stereo —> SAP —> Mono
- Auto Program (2 modes for both TV and Cable, 4 total)
- Channel Preset (TV = 10, Cable = 10)

AV Expansion using Alpine's Overhead Monitors

The TCS-V430A is easily expanded when either of Alpine's Overhead Monitor units (TMX-R680A/R705) are connected. Each of the Overhead Monitors has 2 additional AV inputs. When connected to the TCS-V430A with the KCE-508V extension DIN, the second AV input will be available. To simplify this switching further, even when the source is selected from the overhead monitor, the AV Controller will be switched automatically and source information will be displayed in the OSD.

OPERATION - Remote Control



- 1 Input Source Select (Direct/ Sequential)
- 2 Monitor Output Select
- 3 Direct CH
- 4 AUTO CH (A)
 Manual/SEEK CH (B)

TV Tuner Controls

- 5 BAND
- 6 A.PGM
- 7 PRESET
- 8 DISP
- 9 AUDIO
- 10 TV POWER

Overhead Monitor Control (TMX-R680A)

- 11 MONITOR POWER
- 12 SOURCE
- 13 VOL UP
- 14 VOL DN
- 15 SET UP
- 16 MUTE
- 17 LIGHT (Dome Light)
- * Please see TMX-R680 Owner's Manual

NOTE:

Keys surrounded by a BLUE outline or background, are dedicated for the AV Controller or TV functions. All other keys apply to the Overhead monitor functions.

The RUE-R4151 duplicates the functions found on the RUE-4150 remote control for the overhead monitors.

1. Source Selection

To select any of the four sources directly, press one of the remote control keys listed below:

- TV (Built-in TV Tuner)
- DVD (External DVD input)
- VCR (External VCR input)
- AUX (External AUX input)

2. Monitor Selection

Up to a maximum of 3 monitors can be connected to the TCS-V430A. Monitor 1ST is dedicated to Alpine's Overhead Monitors through a proprietary mini-DIN connector. This connector carries both video and stereo audio channels. However, a separate DIN-to-RCA adapter is included to interface with any type of NTSC monitor. Monitors 2ND and 3RD are standard NTSC compatible outputs along with RCA-type, Left and Right audio outputs.

Pressing any of the monitor keys once, will activate the functions for that monitor. Repeated pressing will cycle through all of the sources for that monitor, without having to use the SOURCE keys.

Changing Sources

There are several ways to change the source displayed on each of the monitors. Press any of the MONITOR keys. The output to which the monitor is connected and the current source being displayed will be shown in its OSD (On Screen Display) for about 8 seconds.

• Direct AV Source Selection

While the OSD is active, pressing any of the SOURCE keys will change the source for the currently selected monitor. If no further keys are pressed for at least 8 seconds, the OSD will automatically turn off and the last selection will remain active.

For example:

- 1) Press Monitor 2ND [A] (assume it is currently displaying the TV video)
- 2) The Monitor connected to the the 2ND output will display "MONITOR 2: TV"
- 3) Before its OSD turns off, Press any of the SOURCE keys [B] (DVD, VCR, AUX) to change from TV to the desired source (DVD for this example).



• Cyclic AV Source Selection

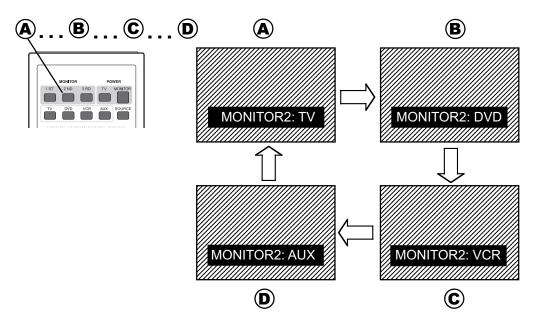
While the OSD is active, pressing the same Monitor key again will change its source. Repeated pressing of this key will cycle through the sources as follows:

$$TV \longrightarrow DVD \longrightarrow VCR \longrightarrow AUX \longrightarrow TV$$

If no key is pressed for at least 8 seconds, the OSD will automatically turn off and the last selection will remain active.

For example:

- 1) Press Monitor 2ND [A] (assume it is currently displaying the TV video)
- 2) The Monitor connected to the the 2ND output will display "MONITOR 2: TV"
- 3) Before its OSD turns off, Press the 2ND key again [**B**] to change the source to DVD. Each successive press will change the source to VCR [**C**], then AUX [**D**] and finally back to TV [**A**].



• Multi Selection Mode

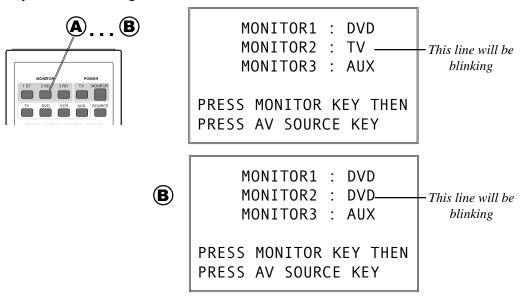
In the MULTI SELECTION mode, sources for each of the monitors can be changed from a single monitor. To display the MULTI SELECTION menu, press and hold the Monitor key of the monitor currently being viewed. A list of each monitor and its currently selected source is shown in the OSD.

The line describing the monitor being viewed will blink. Both Cyclic and Direct Source selection is possible for the selected monitor.

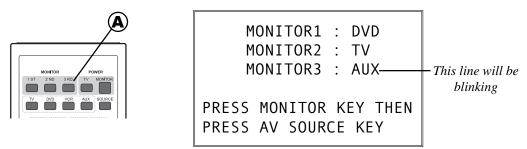
To change monitors, press one of the other Monitor keys. Its line in the menu will begin to blink to indicate selection has been completed. If no key is pressed within about 8 seconds, the Menu screen will disappear and any changes will be set.

For example:

- 1) While viewing 2ND monitor, Press and Hold Monitor 2ND key [A] (assume it is currently displaying the TV video)
- 2) The Monitor connected to the 2ND output will display:
- 3) Before the OSD turns off, Press the 2ND key again to [**B**] change the source for MONITOR2 to DVD. Each successive press will change the source to VCR, then AUX and finally back to TV. Or, pressing any of the Direct Source selection keys will also change source.



4) Press any of the other Monitor keys to change the AV output. If the 3RD Monitor Output is pressed [A], the MONITOR3 line in the menu will blink. Change the source for this monitor as previously described. Either Direct Source or Cyclic selection is available for each Menu item.



NOTE:

When using non-Alpine AV products, it is possible to select an output that is not connected or ON. When this happens, the monitor currently being viewed will be unable to perform any functions until the OSD is turned off on the other monitor. Pressing the SOURCE key will turn off the Menu immediately (before the 8 second delay).

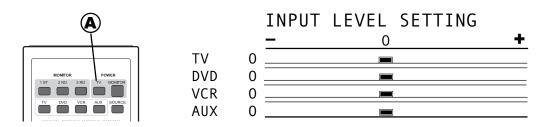
Audio Gain Adjust

The audio level for each AV input (4 total) can be adjusted individually. This will compensate for the inherent differences in output level for the various sources connected to the controller.

Entering "Input Level Setting" screen

Press and hold the "TV" Power button [A].

The "Input Level Setting" screen will be displayed on all connected monitors (as shown below).



NOTE: This OSD will remain active indefinitely, until the user manually turns it off.

• AV Source Selection

Initially, the TV source blinks in the OSD. This indicates the active source. Any adjustment applies to the active source only. To select another source, use the AUTO CH buttons [A] to move up or down in the menu. In addition, pressing any of the AV SOURCE buttons will activate its corresponding source directly.

For example (assume TV is blinking):

- 1) Press the AUTO CH UP button and AUX starts blinking
- 2) Press the DVD button and DVD in the Menu starts blinking

• Level Adjust

Once the Source has been selected, use the MANUAL SEEK buttons [**B**] to adjust its Level up or down.

As the level is adjusted, the bar centered at zero (default) will extend to either the positive or negative direction. At the same time, the numerical indicator (initially 0) will either increase (maximum = 7) or decrease (minimum = -7).

Listen to each output and match levels according to your personal preferences.

NOTE:

Any button, besides the ones used in the adjustment process, can be pressed to leave the Level Adjustment screen.

Channel Selection

3. Direct Channel Select (Numeric keypad 0 - 9)

To select the desired channel, press any of the 10 numeric keys (0 to 9) directly. These keys are also used as the Channel Preset keys. As soon as you press a key, the number that you selected is displayed in the OSD.

TV MODE: When you enter '02' to '69' (or any two digit number), the desired channel appears immediately and the OSD disappears in about 3 seconds.

_ CH 24

When you enter '2' to '9' (or any 1 digit number), it will change to the desired channel after a 3 second delay and the OSD disappears in 3 seconds.

When an invalid CH (Channel) is selected, the current CH will not change and the OSD will disappear in 3 seconds.

CABLE MODE: When you enter 001 to 125 (or any 3 digit number), the desired channel appears immediately and the OSD disappears in about 3 seconds.

When you enter less than three digits, it will change to the desired channel after 3 seconds delay and the OSD disappears in about 3 seconds.

When an invalid CH is selected, the current CH does not change and the OSD will disappear in 3 seconds.

4. CH DOWN/UP Key

Use the AUTO CH and MANUAL SEEK Arrow keys to select the desired TV channel.

AUTO CH DN/UP Keys

Use this key to select any CH which was set by the AUTO PROGRAM function. Press the UP or DOWN keys to move up or down in sequential order.

MANUAL SEEK DN/UP Key

This key has two functions as follows.

• Press and release: Channel moves UP or DOWN one frequency at a time (whether

a station exists or not).

• Press and Hold: Press and hold the UP or DOWN key for at least 2 seconds to

seek up or down to the next valid station.

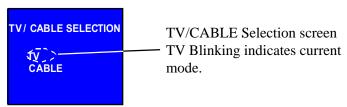
NOTE:

If the tuner does not find a valid CH during the seek mode, it will stop after all channels have been checked.

5. BAND Key

Use the BAND Key to choose between TV mode and CABLE mode. Most of time TV mode is used for the mobile environment. However, should a camp site or RV Park have a cable TV hook-up, CABLE mode may be used.*

After pressing the BAND key, the OSD will display the current status (blinking). Pressing the key again, will toggle between the TV and CABLE BAND. After 8 seconds or when any other key is pressed, the OSD display will disappear and changes will be set.



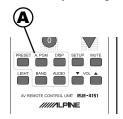
* To connect CABLE TV, an F-connector-to-mini-phono jack adapter must be used. This is available at any electrical parts shop. Plug the adapter into any one of 4 Diversity antenna input jacks. The TV Band can receive up to 68 channels (2-69). The CABLE Band can receive up to 125 channels (1-125). The total number of channels available for both TV and Cable TV is 181 (after subtracting the redundant 12, channels 2 through 13).

6. AUTO PROGRAM (A.PGM) Key

AUTO PROGRAM memorizes only receivable channels in the current band. AUTO PROGRAM memory is available on both TV and CABLE Bands. Each memory can be either LOCAL or TRAVEL. This gives a total of 4 memories. This is very useful to store stations near your home in LOCAL memory and then use TRAVEL memory when on vacation in an unfamiliar region.

This key has two functions as follows:

• Press and release: Switch LOCAL and TRAVEL
Press and release the A.PGM key [A]. The OSD will display the current status [B]
(blinking). Pressing the key again toggles between the two Modes (LOCAL and TRAVEL). After 8 seconds or when any other key is pressed, the OSD display disappears and any change made is set.





Press and Hold: Start AUTO PROGRAM

While the OSD is displayed, press and hold the same key for at least 2 seconds, AUTO PROGRAM begins searching the selected band for receivable channels. The status of the search is shown in the OSD (see below). Once the AUTO PROGRAM starts, it cannot be stopped until the entire band is scanned.



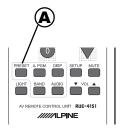
7. PRESET Key

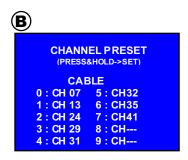
The PRESET key is able to assign any channel to any of the numeric keys 0 to 9. The TV and CABLE Bands can have up to 10 presets each. This memory is entirely separate from the AUTO PROGRAM memory. This key has two functions as follows.

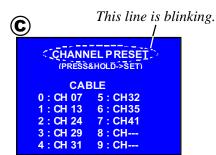
• Press and release: Display PRESET CH list

Pressing and releasing the PRESET key [A] will list all the PRESETs and their assigned channels [B].

Pressing one of the numeric keys while the OSD is displayed, changes the channel to the one corresponding to the stored PRESET.







• Press and Hold: Set PRESET CH

Regardless of whether the OSD is displayed or not, press and hold PRESET key for at least 2 seconds. The PRESET CH List is displayed and "CHANNEL PRESET" at the top of the screen blinks [**C**]. This indicates that the current channel can be assigned to one of the PRESETS.

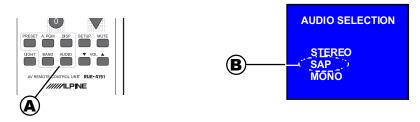
Pressing one of the numeric keys assigns the current channel to that PRESET number.

After 8 seconds, the OSD display disappears.

8. AUDIO Key

Use the AUDIO Key to change the audio setting for TV and CABLE..

Press AUDIO key [A] to display the current Audio status (blinking). Pressing the key again will cycle through the three settings (STEREO —> SAP —> MONO). After 8 seconds or when any other key is pressed, the OSD disappears and any change made is set.

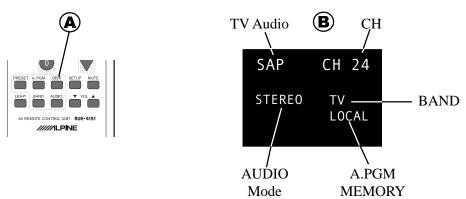


9. DISPLAY Key

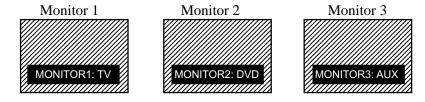
The DISPLAY Key [A] displays the current TV and AV Controller status for TCS-V430A.

After 8 seconds or when any other key is pressed, the OSD disappears. This key has two functions as follows:

Press and release [A]: Display current TV status [B]
 OSD gives the CH Audio status, TCS-V430A AUDIO mode, BAND, A.PGM and Channel for TV.



Press and Hold [A]: Display current AV Controller status
 OSD will display the monitor number and currently assigned AV input source on all monitors.



10. TV POWER Key

Power ON/OFF control for TCS-V430A is as follows:

• **POWER ON:** Press TV POWER key when there is no video signal from any

external input.

It is automatically turned ON when the TCS-V430A detects a video

signal input on any one of the 3 External inputs.

• **POWER OFF:** Press TV POWER key when there is no video signal from any input.

NOTE: As long as there is a video signal detected on any of the external inputs, the unit cannot be turned off. Once the unit is turned on manually, it will not turn off automatically even if there is no video signal.

OTHER FEATURES

Reset Switch

The reset switch, located on the side of the unit, is for returning the unit back to its original factory settings.

All memory contents will be erased and all settings on the unit will return to their factory defaults.

Power Indicator LED

The Power Indicator LED shows the unit status as follows:

• POWER ON: Always ON; Unit is active.

• STAND-BY: Blinking; Unit is OFF but receiving power from the iginition/acc

line and is awaiting the Power ON command.

• NO POWER: Always OFF; The vehicle's IGN/ACC line is OFF or the fuse has

burned out. The unit cannot be turned ON.

Last Status Memory

TCS-V430A retains its current status and memory contents even when no power is supplied. Therefore, the unit remembers its last status so when power is restored it will continue where it left off.

Multiple Remote Signal Combination

The TCS-V430A can accept up to 3 remote inputs for user convenience. This enables remote control operation from whichever monitor that the passenger is watching. The remote signal can be connected directly from any ALPINE Monitor product that has a built-in remote eye. The External Remote Eye supplied with TCS-V430A can be used for other monitor brands.

	TMX-	TMX-	TME-	EXT. EYE	AV H/U**
	R680A	R705	M750A		
REMOTE 1 (DIN)	~	\checkmark	√*		√*
REMOTE 2 IN			\checkmark	\checkmark	\checkmark
REMOTE 3 IN			√	√	√

Notes:

CAUTION

TV picture quality in the mobile environment is affected by the movement of the vehicle and other reception conditions not found in the home. TV reception is also affected by the antenna used, type of car, installation, location and more.

This product utilizes a 4-Channel diversity antenna system designed especially for in car use. Some performance increase may be realized by upgrading the antenna from any other third-party supplier.

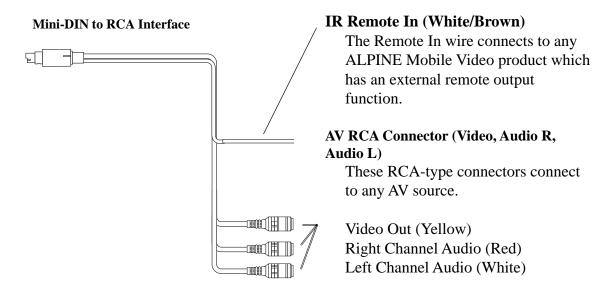
Under the following conditions, the image quality may be impaired.

- Between buildings or other large structures, mountains, valley or canyon
- Near high-voltage wires or neon signs
- A passing automobile, motor bike, train, or plane
- Near the transmission antenna of a radio station or an amateur wireless station, or when a wireless device is being used in the vehicle
- Large distance from the broadcast station

^{*} The remote signal output on any monitor can also be connected to the mini-DIN terminal as Monitor 1, using the DIN to RCA Interface Adapter that comes with TCS-V430A.

^{**} Such as Alpine models CVA-1003, CVA-1005, IVA-C800, etc.

WIRING/CONNECTIONS



WIRING/CONNECTIONS

Remote OUT (WHITE/BROWN) Ignition Switch/ACC Fuse Holder (RED) Ground/Chassis (BLACK)

Cable Color

Ignition/ACC	Red
Ground/Chassis	Black
Remote Output	White/Brown

Remote Output

The Remote Output wire connects to any ALPINE Mobile Video product which has an external remote input function. For example, products such as a DVD and VCR.

Ground (GND)

Connect this lead to a good chassis ground on the vehicle. Make sure the connection is made to bare metal and is securely fastened using a sheet metal screw.

Ignition/ACC

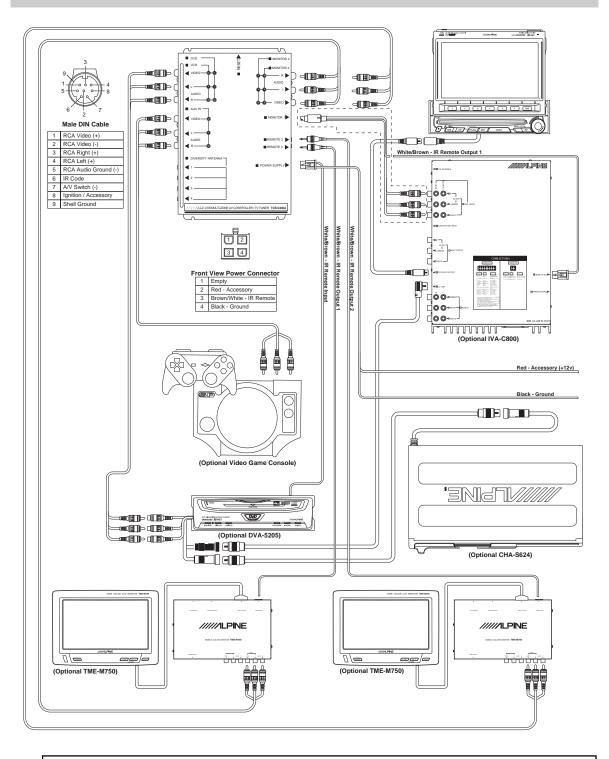
This is a switched +12V for the main unit. It will be powered when the Ignition key position is ACC.

SPECIFICATIONS

Main UnitProduct TypeVideo Switcher and Mobile TV systemTelevision systemNTSCChannel coverageTV: CH 2 - CH 13 (VHF), CH 14 - CH 69(UHF)CABLE: CH 1 - CH 125Power Requirement14.4 VDC (11 -15 VDC allowable)	
Current Drain	
Video Input	
Video Output	
Audio Output	
(Input gain level continuously adjustable) Operating Temperature : +32 °F to +122 °F (0 °C to + 50 °C) Current Draw 50 mA (Standby) 600 mA (ON) Dimensions (D x W x H) Main Unit (chassis only)	
184 x 145 x 35 mm (7.24 x 5.71 x 1.38 in.)	
Main Unit (including RCA's and mounting flange) 202 x 158 x 35 mm (7.95 x 6.22 x 1.38 in.) Weight	
Wireless remote control DC 2V A A A hottom: v. 2	
Wireless remote controlPower SourceDC 3V AAA battery x 2Remote control rangeabout 2m (6.5 feet) within 30 degreesDimensions (D x W x H)147 x 63 x 16 mm (5.72 x 2.48 x 0.63 in.)Weight73.7 g/2.6 oz.96.4 g/3.4 oz. (with batteries)	
Power Source	
Power Source	1
Power Source	
Power Source	1
DC 3V AAA battery x 2	1 1
Power Source DC 3V AAA battery x 2 Remote control range about 2m (6.5 feet) within 30 degrees Dimensions (D x W x H) 147 x 63 x 16 mm (5.72 x 2.48 x 0.63 in.) Weight 73.7 g/2.6 oz. 96.4 g/3.4 oz. (with batteries) Accessories RUE-4151 Remote Control x Mini-DIN to RCA interface x Power Supply Connector x	1 1 1
Power Source DC 3V AAA battery x 2 Remote control range about 2m (6.5 feet) within 30 degrees Dimensions (D x W x H) 147 x 63 x 16 mm (5.72 x 2.48 x 0.63 in.) Weight 73.7 g/2.6 oz. 96.4 g/3.4 oz. (with batteries) Accessories RUE-4151 Remote Control x Mini-DIN to RCA interface x Power Supply Connector x External Remote Eye x External Remote Connectors x 4 CH Diversity Antennae x 2 p	1 1 1 2 or.
Power Source DC 3V AAA battery x 2 Remote control range about 2m (6.5 feet) within 30 degrees Dimensions (D x W x H) 147 x 63 x 16 mm (5.72 x 2.48 x 0.63 in.) Weight 73.7 g/2.6 oz. 96.4 g/3.4 oz. (with batteries) Accessories RUE-4151 Remote Control x Mini-DIN to RCA interface x Power Supply Connector x External Remote Eye x External Remote Connectors x	1 1 1 2 or.

Due to continuous product improvements, specifications and design are subject to change without notice. The LCD panel is manufactured using an extremely high precision manufacturing technology. Its effective pixel ratio is over 99.99%. This means that 0.01% of the pixels could be either always ON or always OFF.

Typical Rear Seat Entertainment System





It is dangerous and illegal for the driver to watch the TV/Video while driving the vehicle. The driver may be distracted from looking ahead and an accident could occur.



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